

In the Claims:

Following is a complete listing of the claims pending in the application, as amended:

Please cancel claims 1-35.

1-35. (Canceled)

36. (Original) A derivative wing derived from a baseline wing, the baseline wing having a first outboard wing portion, a first forward inboard wing portion, a first aft inboard wing portion, and a baseline wing area, the derivative wing comprising:

a second outboard wing portion, the second outboard wing portion being sized and shaped at least generally similarly to the first outboard wing portion of the baseline wing;

a second forward inboard wing portion, the second forward inboard wing portion being sized and shaped at least generally similarly to the first forward inboard wing portion of the baseline wing;

a second aft inboard wing portion, the second aft inboard wing portion being sized and shaped at least generally similarly to the first aft inboard wing portion of the baseline wing;

a chordwise wing insert portion, the chordwise wing insert portion being interposed between the second forward inboard wing portion and the second aft inboard wing portion to structurally connect the second forward inboard wing portion to the second aft inboard wing portion; and

a spanwise wing insert portion, the spanwise wing insert portion being interposed between the second outboard wing portion and the second forward and aft inboard wing portions to structurally connect the second outboard wing portion to the second forward and aft inboard wing portions, the derivative wing having a wing area greater than the baseline wing area.

37. (Original) The derivative wing of claim 36 further comprising:
a leading edge; and
a trailing edge, wherein the second outboard wing portion is connected to the spanwise wing insert portion along a chordwise separation line extending between the leading edge and the trailing edge.

38. (Original) The derivative wing of claim 36 further comprising:
a leading edge;
a trailing edge; and
a wing-root, wherein the second outboard wing portion is connected to the spanwise wing insert portion along a chordwise separation line extending between the leading edge and the trailing edge, and wherein the second forward inboard wing portion is connected to the chordwise wing insert portion along a spanwise separation line extending from the wing-root to the spanwise wing insert portion.

39. (Original) The derivative wing of claim 36 further comprising:
a leading edge;
a trailing edge; and
a wing-root, wherein the second outboard wing portion is connected to the spanwise wing insert portion along a chordwise separation line extending between the leading edge and the trailing edge, wherein the second forward inboard wing portion is connected to the chordwise wing insert portion along a first spanwise separation line extending from the wing-root to the spanwise wing insert portion, and wherein the second aft inboard wing portion is connected to the chordwise wing insert portion along a second spanwise separation line extending from the wing-root to the spanwise wing insert portion.

40. (Original) The derivative wing of claim 36 wherein the baseline wing includes a first leading edge having a first sweep angle, and wherein the spanwise wing insert portion includes a second leading edge having a second sweep angle, the second sweep angle being at least approximately equal to the first sweep angle.

41. (Original) The derivative wing of claim 36 wherein the baseline wing further includes a first leading edge having a first sweep angle and a first trailing edge having a second sweep angle, and wherein the spanwise wing insert portion includes a second leading edge having a third sweep angle and a second trailing edge having a fourth sweep angle, the third sweep angle being at least approximately equal to the first sweep angle and the fourth sweep angle being at least approximately equal to the second sweep angle.

42. (Original) The derivative wing of claim 36 wherein the baseline wing further includes a first engine support structure, and wherein the second forward inboard wing portion of the derivative wing includes a second engine support structure at least generally similar to the first engine support structure.

43. (Original) The derivative wing of claim 36 wherein the baseline wing further includes a first landing gear support structure, and wherein the second aft inboard wing portion of the derivative wing includes a second landing gear support structure at least generally similar to the first landing gear support structure.

44. (Original) The derivative wing of claim 36 wherein the baseline wing further includes a first engine support structure and a first landing gear support structure, wherein the second outboard wing portion of the derivative wing includes a second engine support structure at least generally similar to the first engine support structure, and wherein the second aft inboard wing portion of the derivative wing includes a second landing gear support structure at least generally similar to the first landing gear support structure.

45. (Original) The derivative wing of claim 36 wherein the baseline wing further includes a wing spar, and wherein the chordwise wing insert portion is positioned adjacent to the wing spar.

46. (Original) The derivative wing of claim 36 wherein the chordwise wing insert portion and the spanwise wing insert portion are contiguous.

47. (Original) A derivative aircraft derived from a baseline aircraft, the baseline aircraft having a baseline fuselage and a baseline wing extending outwardly from the baseline fuselage, the baseline wing having a first outboard wing portion, a first forward inboard wing portion, a first aft inboard wing portion, and a baseline wing area, the derivative aircraft comprising:

a derivative fuselage; and

a derivative wing extending outwardly from the derivative fuselage, the derivative wing comprising:

a second outboard wing portion, the second outboard wing portion being sized and shaped at least generally similarly to the first outboard wing portion of the baseline wing;

a second forward inboard wing portion, the second forward inboard wing portion being sized and shaped at least generally similarly to the first forward inboard wing portion of the baseline wing;

a second aft inboard wing portion, the second aft inboard wing portion being sized and shaped at least generally similarly to the first aft inboard wing portion of the baseline wing;

a chordwise wing insert portion, the chordwise wing insert portion being interposed between the second forward inboard wing portion and the second aft inboard wing portion to structurally connect the second forward inboard wing portion to the second aft inboard wing portion; and

a spanwise wing insert portion, the spanwise wing insert portion being interposed between the second outboard wing portion and the second forward and aft inboard wing portions to structurally connect the second outboard wing portion to the second forward and aft inboard wing portions, the derivative wing having a wing area greater than the baseline wing area.

48. (Original) The derivative aircraft of claim 47 wherein the derivative wing further includes a leading edge and a trailing edge, wherein the second outboard wing portion is connected to the spanwise wing insert portion along a chordwise separation line extending between the leading edge and the trailing edge.

49. (Original) The derivative aircraft of claim 47 wherein the derivative wing further includes a leading edge, a trailing edge, and a wing-root, wherein the second outboard wing portion is connected to the spanwise wing insert portion along a chordwise separation line extending between the leading edge and the trailing edge, and wherein the second forward inboard wing portion is connected to the chordwise wing insert portion along a spanwise separation line extending from the wing-root to the spanwise wing insert portion.

50. (Original) The derivative aircraft of claim 47 wherein the baseline wing further includes a first leading edge having a first sweep angle and a first trailing edge having a second sweep angle, and wherein the spanwise wing insert portion includes a second leading edge having a third sweep angle and a second trailing edge having a fourth sweep angle, the third sweep angle being at least approximately equal to the first sweep angle and the fourth sweep angle being at least approximately equal to the second sweep angle.

51. (Original) The derivative aircraft of claim 47 wherein the baseline wing further includes a first engine support structure, and wherein the second outboard wing

portion of the derivative wing includes a second engine support structure at least generally the same as the first engine support structure.

52. (Original) The derivative aircraft of claim 47 wherein the baseline wing further includes a first landing gear support structure, and wherein the second aft inboard wing portion of the derivative wing includes a second landing gear support structure at least generally the same as the first landing gear support structure.

53. (Original) The derivative aircraft of claim 47 wherein the baseline wing further includes a first engine support structure and a first landing gear support structure, wherein the second outboard wing portion of the derivative wing includes a second engine support structure at least generally the same as the first engine support structure, and wherein the second aft inboard wing portion of the derivative wing includes a second landing gear support structure at least generally the same as the first landing gear support structure.

54. (Original) The derivative aircraft of claim 47 wherein the baseline fuselage includes a first forward fuselage portion and a first aft fuselage portion, and has a baseline fuselage length, wherein the derivative fuselage of the derivative aircraft further comprises:

a second forward fuselage portion, the second forward fuselage portion being at least generally the same as the first forward fuselage portion of the baseline fuselage;

a second aft fuselage portion, the second aft fuselage portion being at least generally the same as the first aft fuselage portion of the baseline fuselage; and

a fuselage insert interposed between the second forward fuselage portion and the second aft fuselage portion to structurally connect the second forward fuselage portion to the second aft fuselage portion, the derivative fuselage having a fuselage length greater than the baseline fuselage length.

55. (Original) The derivative aircraft of claim 54 wherein the fuselage insert is positioned adjacent to the wing insert.

56. (Original) The derivative aircraft of claim 54 wherein the baseline wing further includes a wing spar and the baseline fuselage further includes a fuselage frame, and wherein the chordwise wing insert portion is positioned adjacent to the wing spar and the fuselage insert is positioned adjacent to the fuselage frame.

57. (Original) The derivative aircraft of claim 54 wherein the baseline wing further includes a forward wing spar and a rear wing spar and the baseline fuselage further includes a fuselage frame adjacent to the rear wing spar, and wherein the chordwise wing insert portion is positioned adjacent to the rear wing spar and the fuselage insert is positioned adjacent to the fuselage frame.

58. (Original) A wing insert usable with a baseline wing, the baseline wing having an outboard wing portion and an inboard wing portion, the inboard wing portion having a forward inboard wing portion and an aft inboard wing portion, the wing insert comprising:

a chordwise wing insert portion, the chordwise wing insert portion configured to be interposed between the forward inboard wing portion and the aft inboard wing portion to increase an average chord of the inboard wing portion of the baseline wing; and

a spanwise wing insert portion adjacent to the chordwise wing insert portion, the spanwise wing insert portion configured to be interposed between the outboard wing portion and the forward and aft inboard wing portions to increase a wingspan of the baseline wing.

59. (Original) The wing insert of claim 58 wherein the baseline wing includes a first leading edge having a first sweep angle and a first trailing edge having a second sweep angle, wherein the chordwise wing insert portion of the wing insert has a second

leading edge with the first sweep angle and a second trailing edge with the second sweep angle.

60. (Original) The wing insert of claim 58 wherein the baseline wing includes an engine support structure, and wherein the spanwise wing insert portion of the wing insert is configured to be interposed between the outboard wing portion and the forward and aft inboard wing portions at least generally outboard of the engine support structure.

61. (Original) The wing insert of claim 58 wherein the baseline wing includes a landing gear support structure, and wherein the chordwise wing insert portion of the wing insert is configured to be interposed between the forward inboard wing portion and the aft inboard wing portion at least generally forward of the landing gear support structure.

62. (Original) The wing insert of claim 58 wherein the baseline wing includes an engine support structure and a landing gear support structure, wherein the spanwise wing insert portion of the wing insert is configured to be interposed between the outboard wing portion and the forward and aft inboard wing portions at least generally outboard of the engine support structure, and wherein the chordwise wing insert portion of the wing insert is configured to be interposed between the forward inboard wing portion and the aft inboard wing portion between the landing gear support structure and the engine support structure.

63. (Original) The wing insert of claim 58 wherein the baseline wing includes a leading edge, a trailing edge, an engine support structure positioned toward the leading edge, and a landing gear support structure positioned toward the trailing edge, wherein the spanwise wing insert portion of the wing insert is configured to be interposed between the outboard wing portion and the forward and aft inboard wing portions at least generally outboard of the engine support structure, and wherein the chordwise

wing insert portion of the wing insert is configured to be interposed between the forward inboard wing portion and the aft inboard wing portion between the landing gear support structure and the engine support structure.

64. (Original) The wing insert of claim 58 the chordwise wing insert portion and the spanwise wing insert portion are initially separate and configured to be attached to each other when installed.

65. (Original) A derivative wing derived from a baseline wing having a baseline wing area, the baseline wing further having a first outboard wing portion, a first forward inboard wing portion, and a first aft inboard wing portion, the first outboard wing portion being spaced apart from the first forward and aft inboard wing portions by a spanwise wing portion, and the first forward inboard wing portion being spaced apart from the first aft inboard wing portion by a chordwise wing portion, the derivative wing comprising:

a second forward inboard wing portion, the second forward inboard wing portion being sized and shaped at least generally similarly to the first forward inboard wing portion of the baseline wing;

a second aft inboard wing portion, the second aft inboard wing portion being sized and shaped at least generally similarly to the first aft inboard wing portion of the baseline wing, the second aft inboard wing portion being connected to the second forward inboard wing portion along a spanwise connection line; and

a second outboard wing portion, the second outboard wing portion being sized and shaped at least generally similarly to the first outboard wing portion of the baseline wing, the second outboard wing portion being connected to the second forward and aft inboard wing portions along a chordwise connection line, the derivative wing having a wing area less than the baseline wing area.

66. (Original) The derivative wing of claim 65 further comprising:
a leading edge;
a trailing edge; and
a wing-root, wherein the chordwise connection line extends between the leading edge and the trailing edge, and wherein the spanwise connection line extends from the wing-root to the chordwise connection line.

67. (Original) The derivative wing of claim 65 wherein the baseline wing further includes a first engine support structure, and wherein the second forward inboard wing portion of the derivative wing includes a second engine support structure at least generally the same as the first engine support structure.

68. (Original) The derivative wing of claim 65 wherein the baseline wing further includes a first landing gear support structure, and wherein the second aft inboard wing portion of the derivative wing includes a second landing gear support structure at least generally the same as the first landing gear support structure.

69. (Original) The derivative wing of claim 65 wherein the baseline wing further includes a first engine support structure and a first landing gear support structure, wherein the second forward inboard wing portion of the derivative wing includes a second engine support structure at least generally the same as the first engine support structure, and wherein the second aft inboard wing portion of the derivative wing includes a second landing gear support structure at least generally the same as the first landing gear support structure.